



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,939	01/11/2002	Lisa Dhar	495812001900	9372

20872 7590 08/19/2003  
MORRISON & FOERSTER LLP  
425 MARKET STREET  
SAN FRANCISCO, CA 94105-2482

EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/043,939

Applicant(s)

DHAR ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 29-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 and 40-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**DETAILED ACTION**

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10 and 20-39, drawn to a method for fabricating a multilayer holographic storage system, classified in class 359, subclass 1.
  - II. Claims 11-19 and 40-48 are drawn to a multilayer article, classified in class 428, subclass 195.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product of II can be made by grasping of the second substrate prior to the grasping of the first.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Chris Eyde on 6-3-03 a provisional election was made with traverse to prosecute the invention of II, claims 11-19 & 40-48. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 and 20-39 are

Art Unit: 1774

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 11-19 and 40-48 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,156,415 to Campbell et al.

Although the conflicting claims are not identical, they are not patentable distinct from each other because the present claims differ only in the recitation of a third substrate and that the substrates contain at least one hole for the adherent to pass through. Since the patented claim 1 includes the language "comprising", an additional third substrate is obvious to include. In

Art Unit: 1774

regards to the holes in the substrates, the adherent is the same material, adhered in the same way, it is obvious that Patent '415 would have holes since the same materials and structure of the product is the same.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 11-12, 14-19, 40-41, and 43-48 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,156,415 to Campbell et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Campbell teaches a system comprising a first and second substrate having an adherent between the substrates, also showing a third substrate in Figures 2-5. See patented claims 1, 3, and 9 teaching all the limitations to the flatness and waviness requirements and Strehl value. The substrate can be any shape. The same materials are taught; therefore the optically reflective property is inherent (claim 40). See col. 3, lines 55-60, col. 4, lines 25-68, col. 11, lines 30-50

Art Unit: 1774

and col. 13, line 55-col. 14, line 14. See col. 12, lines 55-65 teaching properties of thickness between 0.1 to 1 mm and transmission flatness values from 0.1 to 10 waves/cm.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 11- 12; 14-19 and 40-41 and 43-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,393,365 to Smith in view of USPN 6,075,626 to Mizutani et al.

11. Smith teaches an embossed glass/plastic laminate having 3 substrates with cured adhesive/resin (equivalent to adherent) interdisposed between the layers. See Figure. The layers can be polymeric films of methylmethacrylate and glass (see col. 1, lines 30-40 and Example). The layers have relief patterns on the surface of the film and glass laminate see col. 1, lines 35-50. The same materials are taught; therefore the optically reflective property is inherent (claim 40). The surface and transmission flatness requirements as recited in instant claim 1 are not taught. However, it would have been obvious to one of ordinary skill in the art to include such flatness requirements because the same materials and processes are taught. The figure shows the shape of the laminate being rectangular (meeting claims 14 and 43).

12. To the type of curing process utilized (thermal or radiation) as described in instant claims 18 and 47, the adherent is cured, therefore, how it was done is not given patentable weight. Such limitations are process limitations in product claims. Product-by-process claims are not limited

Art Unit: 1774

to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113).

Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

13. Regarding the thickness from 25 micrometers to 3 millimeters of the substrates, such limitations are optimizable features. Smith teaches at col. 2, lines 40-41, the thickness of substrates vary depending upon the particular application. Therefore, it would have been obvious to one of ordinary skill in the art to modify the thickness since Smith teaches it depends upon the application as cited above.

14. Smith teaches polymers as adhesives, but does not teach a *photopolymer* as an adherent. However, Mizutani teaches a hologram where a photopolymer is used to provide adherence to glass at col. 1, lines 25-45. It would have been obvious to one of ordinary skill in the art to modify the laminate of Smith to include a photopolymer adherent since Mizutani teaches its usefulness with holograms.

15. Smith does not teach that the adherent is capable of storing data. That the adherent is capable of storing data is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

16. Claims 13 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,393,365 to Smith in view of USPN 6,075,626 to Mizutani et al. and further in view of USPN 5,556,709 to Kato et al.

Art Unit: 1774

17. Smith essentially teaches the claimed invention. Smith does teach metal mesh and cloth nonwovens over glass at col. 40-45, but does not teach holes in a substrate for dispensing an adherent through a substrate. However, Kato teaches a photocurable resin composition for glass laminates teaching a photocurable resin is injected between glass sheets at col. 5, lines 50-60, thereby teaching a functional equivalent of the limitation of holes in a substrate for dispensing adherent through a substrate. It would have been obvious to one of ordinary skill in the art to modify the laminate of Smith to include holes for dispensing adherent through substrates since Kato teaches injecting photocurable resins through glass substrates, meaning the substrates have holes.

#### *Conclusion*

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus  
Examiner  
Art Unit 1774

August 4, 2003

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

*Cynthia H. Kelly*